

UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. no. 09/381,742

Filed: October 13, 1999

Examiner: ALVAREZ, RAQUEL

Art unit: 3622

Conf. no. 4358

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*3622*  
*CDP*

TRANSMITTAL OF APPEAL BRIEF

Enclosed please find three copies of the Appeal Brief and three copies of the Appendix.

It is believe that no fee is due at this time, as the fee for the Appeal Brief was previously paid on December 23, 2002. If, however, the Commissioner feels a second appeal brief fee is due, the Commissioner is authorized to charge our deposit account no. 15-0610. Please note that the applicant is a Small Entity.

Respectfully submitted,

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: White	Examiner: Alvarez, Raquel
Serial No.: 09/381,742	Group Art Unit: 3622
Filing Date: October 13, 1999	Confirmation No.: 4358
For: Exchange Method and Apparatus	
ATTORNEY DOCKET NO. GREN.P-001NP	

**BRIEF FOR APPELLANT**

Responsive to the Final Official Action mailed on November 18, 2003 for the above-captioned application (hereinafter, the Office Action), the present appeal brief is respectfully submitted.

**(1) Real Party In Interest**

The real party in interest is Grenex Corporation, the assignee.

**(2) Related Appeals And Interferences**

There are no other appeals or interferences known to Appellant, Appellant's legal representative or Appellant's assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The status of all the claims, pending or cancelled, is as follows, where (i) the column titled "Embodiment" identifies for claims being appealed the applicable embodiment as set forth below in the Summary Of Invention and (ii) the column titled "Issues" identifies for the claims being appealed the applicable issues on appeal:

<b>Claims</b>	<b>Status</b>	<b>Embodiment</b>	<b>Issues</b>
1-64	Withdrawn based on Applicant's election with traverse	N/A	N/A
52-55	Cancelled	N/A	N/A
56-64	Withdrawn based on Applicant's election with traverse	N/A	N/A
65-75	Pending, Allowed	N/A	N/A
76-81	Pending, Allowed	N/A	N/A
82-87	Pending, Allowed	N/A	N/A
88-93	Pending, Allowed	N/A	N/A
94-100	Pending, Allowed	N/A	N/A
101-108	Pending, Allowed	N/A	N/A
109-117	Pending, Allowed	N/A	N/A
118-123	Pending, Allowed	N/A	N/A
124-128	Cancelled	N/A	N/A
129	Pending, Allowed	N/A	N/A
130-136	Cancelled	N/A	N/A
137	Pending, Allowed	N/A	N/A
138-140	Pending, Allowed	N/A	N/A
141	Withdrawn based on Applicant's election with traverse	N/A	N/A
142-147	Cancelled	N/A	N/A
148-152	Withdrawn based on Applicant's election with traverse	N/A	N/A
153-158	Withdrawn based on Applicant's election with traverse	N/A	N/A
159-162	Withdrawn based on Applicant's election with traverse	N/A	N/A

<u>Claims</u>	<u>Status</u>	<u>Embodiment</u>	<u>Issues</u>
163	Pending, Allowed	N/A	N/A
164	Pending, Allowed	N/A	N/A
165	Pending, Allowed	N/A	N/A
166	Pending, Allowed	N/A	N/A
167	Withdrawn based on Applicant's election with traverse	N/A	N/A
168	Pending, Allowed	N/A	N/A
169	Pending, Rejected, APPEALED	1	2,4,5
170	Pending, Rejected, APPEALED	1	2,5,6
171	Pending, Rejected, APPEALED	2	2,5,7
172	Pending, Rejected, APPEALED	1	5
173	Pending, Rejected, APPEALED	1	2,4,5
174	Pending, Rejected, APPEALED	1	2,5,8
175	Pending, Rejected, APPEALED	1	2,5
176	Pending, Rejected, APPEALED	1	2,5
177	Pending, Rejected, APPEALED	3	2,3,16
178	Pending, Rejected, APPEALED	3	3,16
179	Pending, Rejected, APPEALED	5	2,4,9
180	Pending, Rejected, APPEALED	5	11
181	Pending, Rejected, APPEALED	5	9
182	Pending, Rejected, APPEALED	6	2,4
183	Pending, Rejected, APPEALED	6	2
184	Pending, Rejected, APPEALED	7	2,4,10
185	Pending, Rejected, APPEALED	13	2,4
186	Pending, Rejected, APPEALED	13	2
187	Pending, Rejected, APPEALED	4	2,4
188	Pending, Rejected, APPEALED	4	2
189	Pending, Rejected, APPEALED	8	2
190	Pending, Rejected, APPEALED	9	2
191	Pending, Rejected, APPEALED	10	2,4,12
192	Pending, Rejected, APPEALED	10	2,12
193	Pending, Rejected, APPEALED	11	2,13
194	Pending, Rejected, APPEALED	10	2,12
195	Pending, Rejected, APPEALED	10	2,12
196	Pending, Rejected, APPEALED	15	1,2
197	Pending, Rejected, APPEALED	10	2,4,12
198	Pending, Rejected, APPEALED	10	2,12
199	Pending, Rejected, APPEALED	12	2,12
200	Pending, Rejected, APPEALED	10	2,14

<u>Claims</u>	<u>Status</u>	<u>Embodiment</u>	<u>Issues</u>
201	Pending, Rejected, APPEALED	10	2,12
202	Pending, Rejected, APPEALED	10	2,12
203	Pending, Rejected, APPEALED	7	2,4,15
204	Pending, Rejected, APPEALED	14	2,4
205	Pending, Rejected, APPEALED	14	2
206	Pending, Rejected, APPEALED	14	2
207	Pending, Rejected, APPEALED	14	2
208	Pending, Rejected, APPEALED	14	2
209- 214	Withdrawn from Consideration by Examiner, Canceled	N/A	N/A

Claims 169-208 are appealed.

#### (4) Status Of Amendments

No amendment has been filed subsequent to final rejection.

#### (5) Summary Of Invention

The invention relates generally to (i) using identifiers associated with offers to permit unknown persons to receive detailed information about offers submitted to an offer matching system (Application at page 1 lines 15-16) and (ii) improving how an offer matching system executes offers (Application at page 34 lines 16-26).

In a **first** embodiment the invention (e.g., claims 169, 170, 172, 173, 174, 175, 176) includes:

- (a) associating [1105] a first identifier with a first offer to buy or to sell a traded item (Application at page 4 lines 11-12 and page 23 line 15);
- (b) requesting information about the first offer with a request that
  - (b-i) includes the first identifier (Application at page 4 lines 19-21 and page 24 lines 10-12) and
  - (b-ii) is received in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the first offer (Application at page 4 lines 21-23 and page 24 lines 15-

16); and

- (c) responding [1209] to such request with a response [1154] that includes a data item that concerns the first offer (Application at page 4 lines 21-24 and page 24 lines 17-20). See the Application at page 4 lines 9-24 and at page 30 lines 9-19.

In a **second** embodiment the invention (e.g., claim 171) includes all elements of the first embodiment plus the following additional elements:

- (i) the request (as described above in the first embodiment) also includes a requirement that a first event occur and
- (ii) the response [1254] (as described above in the first embodiment) is not sent [1209] until after the event occurs [1208] (Application at page 22 line 21 to page 23-13 and Application at page 22 lines 24-25).

In a **third** embodiment the invention (e.g., claims 177 and 178) includes all elements of the first embodiment plus the following additional elements:

- (i) the response [1254] (as described above in the first embodiment) also includes a digital signature that is sufficient to permit a recipient of the response to determine with reasonable certainty whether the reply was sent by the offer matching system and whether the reply has been altered (See the Application at page 29 line 25 - page 30 line 8) and
- (ii) the response [1254] is sent [1209] in a manner that is secured without relying upon the digital signature. (See Application at page 11 lines 8-18 and page 36 lines 1-3.)

In a **fourth** embodiment the invention (e.g., claims 187 and 188) includes:

- (a) an offer matching system [2001] executes [1203] a first offer at least in part against a second offer in accordance with a set of rules that govern the operation of the offer matching system,
- (b) a first disclosee [2007] sends [1213, 1214] to a first participant [2002] a first request [1256] for information concerning the first offer,
- (c) in response to the first request, the first participant [2002] sends [1206,

1207] to the offer matching system [2001] a second request [1253] for information concerning the first offer,

- (d) in response to the second request, the offer matching system sends [1304, 1305] to the first disclosee a response [1352] comprising:
  - (i) a first data item responsive to the first request and
  - (ii) a first digital signature from the offer matching system. (See

Application at page 29 line 25 - page 30 line 8.)

In a **fifth** embodiment the invention (e.g., claims 179, 180 and 181) includes:

- (a) associating [1105] a first identifier with a first offer to buy or to sell a traded item (Application at page 4 lines 11-12 and page 23 line 15);
- (b) publishing [1401, 1601, 1605, 1609, 1701, 1705, 1709], in a manner that permits receipt and use by members of the public with no right to receive nonpublic information about the first offer, a data packet [1451, 1651, 1652, 1653, 1751, 1752, 1753] that comprises the first identifier and a data item concerning the first offer, where the data item is not the first identifier.

In a **sixth** embodiment the invention (e.g., claims 182 and 183) includes:

- (a) a first disclosee's [2007] determining a first identifier associated with a first offer to buy or to sell a traded item;
- (b) the first disclosee's [2007] receiving [1606] a data packet [1652] from the system [2001], where:
  - (i) the first disclosee received the data packet in a manner that would permit members of the public with no right to receive nonpublic information about the first offer to receive and to use such data packet,
  - (ii) the data packet [1652] comprises the first identifier,
  - (iii) the data packet [1652] comprises a data item that concerns the first offer, where the data item is not the first identifier, and
  - (iv) until receiving the data packet [1652], the first disclosee [2007] did

not know that the data item concerns the first offer; and

- (c) the first disclosee's [2007] detecting [1607] that the data packet includes the first identifier, whereby the first disclosee [2007] gains possession of information which discloses that the data item concerns the first offer.

In a **seventh** embodiment of the invention (claims 184 and 203) an offer matching system [2001] refuses to execute a first offer from a first participant [2002] before the first offer is approved by a first monitor [2006] and the offer matching system [2001] executes the first offer at least in part after the first offer is approved by the first monitor [2006]. (See Application at page 7 lines 13-18, page 9 line 17 - page 11 line 3 and page 34 lines 8-15.)

In an **eighth** embodiment the invention (e.g., claim 189) includes all of the elements of the fourth embodiment plus the following:

- (i) the first request [1256] comprises a requirement that a first event occur and
- (ii) the offer matching system [2001] does not respond to the second request until the first event occurs [1303].

In a **ninth** embodiment the invention (e.g., claim 190) includes all of the elements of the fourth embodiment plus the following:

- (i) a predetermined relationship exists between the first data item (in a response to a request for information concerning the first offer) and the second offer.

In a **tenth** embodiment the invention (e.g., claims 191, 192, 194, 195, 197, 198, 200, 201, 202) includes:

- (a) an offer matching system's [2001] associating [1106] a first offer with a first identifier,
- (b) the offer matching system's [2001] executing [1203] the first offer against a second offer in accordance with a set of rules that govern the operation of the offer matching system,
- (c) publishing [1401, 1601, 1605, 1609] either:
  - (i) a data packet [1451, 1651, 1652, 1653] that includes the first



- identifier and a first data item that concerns the first offer or
- (ii) a data packet [1451, 1651, 1652, 1653] that includes the first identifier and a first data item concerning an execution of the first offer against the second offer.

In an **eleventh** embodiment the invention (e.g., claim 193) includes all of the elements of the tenth embodiment plus the following:

- (i) the published data packet [1451, 1651, 1652, 1653] includes the first identifier and a first data item that concerns the first offer and
- (ii) a predetermined relationship exists between the first data item and the second offer.

In a **twelfth** embodiment the invention (e.g., claim 199) includes all of the elements of the tenth embodiment plus the following:

- (i) the offer matching system's [2001] associating the second offer with a second identifier and
- (ii) publishing [1401, 1601, 1605, 1609] the second identifier as part of the published data packet [1451, 1651, 1652, 1653].

In a **thirteenth** embodiment of the invention (claim 185-186) an offer matching system executes offers using the following steps:

- (a) storing in the offer matching system [2001] a description of a sell offer for the traded item that includes a minimum price at which the sell offer may be executed;
- (b) storing in the offer matching system [2001] a description of a buy offer for a traded item that includes a maximum price at which the buy offer may be executed, where the maximum price is greater than the minimum price;
- (c) selecting a first price that is indicative of recent trading activity for the traded item, where the first price is greater than the minimum price and the first price is less than the maximum price; and
- (d) executing [1203] the sell offer, in whole or in part, against the buy offer at the first price. (See generally Application at page 34 lines 16-26.)

In a **fourteenth** embodiment of the invention (claim 204-208) an offer matching system [2001] executes [1203] offers using the following steps:

- (a) storing in the offer matching system [2001] a description of a buy offer for a traded item;
- (b) storing in the offer matching system [2001] a description of a sell offer for the traded item;
- (c) detecting that the buy offer may be executed in whole or in part against the sell offer;
- (d) determining a minimum price that is the lowest price at which the sell offer may be executed against the buy offer;
- (e) determining a maximum price that is the highest price at which the buy offer may be executed against the sell offer, wherein the maximum price is greater than the minimum price;
- (f) selecting a first price that is indicative of recent trading activity for the traded item;
- (g) executing the buy offer against the sell offer, in whole or in part, at a second price that is equal to:
  - (i) the minimum price, if the first price is less than the minimum price,
  - (ii) the first price, if the minimum price is less than the first price and the first price is less than the maximum price, or
  - (iii) the maximum price, if the first price is greater than the maximum price. (See generally Application at page 34 lines 16-26.)

In an **fifteenth** embodiment of the invention (claim 196), a data stream (which largely parallels the product of the process set forth in the tenth embodiment) is comprised of a plurality of data packets [1651, 1652, 1653], each of the data packets comprising a respective identifier and a respective data item, wherein:

each respective identifier is associated with a respective offer, and each respective identifier is not associated with any other offer,

an offer matching system has previously received a description of each respective offer from a respective participant,

each respective participant possesses information which discloses that a respective related person satisfies a respective condition selected from the group consisting of:

the respective offer is for the benefit of the respective related person,

the respective offer is for the account of the respective related person,

the respective related person made an investment decision to make the respective offer,

the respective related person has a financial interest in the respective offer,

the respective related person is financially responsible (as principal, guarantor or otherwise) for the respective offer,

the respective related person is financially responsible (as principal, guarantor or otherwise) for a trade arising out of the respective offer,

the respective related person is acting as an agent with respect to the respective offer,

the respective related person is acting as a principal with respect to the respective offer,

the offer matching system possesses information which discloses for each respective offer the respective identifier associated with the respective offer,

each respective data item concerns the respective offer associated with the respective identifier,

a set of rules that govern the operation of the offer matching system permit the offer matching system to disclose publicly that the respective data items concern the respective offers and

the set of rules does not permit the offer matching system to disclose publicly that the respective related persons satisfy the respective conditions.

**(6) Issues**

The **first** issue on appeal is whether the Examiner is justified in rejecting claim 196 on the grounds that a data stream is non-statutory subject matter because the data therein does not impact functionality to the data stream, regardless of the content of the data stream.

The **second** issue on appeal is whether the Examiner is justified in rejecting claims 169-171, 173-177, 179, 182-183, and 184-208 under 35 U.S.C. 101 on the grounds that those method claims are non-statutory because they fail to satisfy several undefined requirements proposed by the Examiner, despite: (a) such method claims' being directed to a process as expressly permitted in 35 U.S.C. 101; (b) such claims' being expressly limited to methods for operating and/or interacting with offer matching and/or information publishing systems; (c) the specification's disclosure of technology permitting one reasonably skilled in the art to practice the methods set forth in the claims; and (d) 35 U.S.C. 101's not requiring that a claim for a method (d-1) include a process (somehow distinct from the claimed method itself) for carrying out the invention, (d-2) include structural means for carrying out the invention, (d-3) be implemented with specific automated computer apparatus, (d-4) be in the "technological" or "useful" arts, or (d-5) affect or define the technology.

The **third** issue on appeal is whether the Examiner is justified in rejecting claims 177 and 178 under 35 USC 112 despite the fact that both claims clearly require both a digital signature and additional security that does not rely upon the digital signature.

The **fourth** issue on appeal is whether the Examiner is justified in rejecting claims 169, 173, 179, 182, 184, 185, 187, 191, 197, 203 and 204 under 35 USC 112 despite the fact that all of those claims positively recite that a computer apparatus is included.

The **fifth** issue on appeal is whether Adams et al. (3,573,747 hereinafter Adams) suffices to justify rejection of claims 169-176 under 35 USC 102 despite: (a) Adams's failure to disclose (a-1) sending or receiving a request that includes an identifier associated with an offer, (a-2) sending or receiving a request in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the offer, and (a-3) in response to such a request, sending a reply that comprises a data item that concerns the offer; and (b) Adams's teaching away from (b-1) using a query/response protocol to communicate information about a

particular offer and (b-2) communicating about offers in a manner that does not imply that such communication is from or to a person entitled to receive nonpublic information about such offer.

The **sixth** issue on appeal is whether Adams suffices to justify rejection of claim 170 under 35 USC 102, despite such claim's dependence upon claim 169.

The **seventh** issue on appeal is whether Adams suffices to justify rejection of claim 171 under 35 USC 102 despite: (a) Adams's failure to disclose (a-1) not responding to a request until after an event occurs.

The **eighth** issue on appeal is whether Adams suffices to justify rejection of claim 174 under 35 USC 102, despite such claim's dependence upon claim 173.

The **ninth** issue on appeal is whether Adams suffices to justify rejection of claims 179 and 181 under 35 USC 102 despite: (a) Adams's failure to disclose (a-1) publishing anything and (a-2) "publishing, in a manner that permits receipt and use by members of the public with no right to receive nonpublic information about the first offer, a data packet that comprises ..." a first offer identifier and a data item about a first offer; and (b) Adams's teaching away from (b-1) publishing anything "in a manner that permits receipt and use by members of the public with no right to receive nonpublic information ...".

The **tenth** issue on appeal is whether Adams suffices to justify rejection of claim 184 under 35 USC 102 despite: (a) Adams's failure to disclose (a-1) storing in the offer matching system an association among a first participant and a first monitor, where the first monitor is not the first participant, (a-2) receiving a message from the first monitor that approves a first offer, (a-3) until receiving the message of approval, refusing to execute the first offer against any other offer, and (a-4) after receiving the message of approval, executing the first offer at least in part against a second offer; and (b) Adams's teaching away from waiting for an approval before executing a first offer against a second offer when the first offer is capable of being executed against the second offer.

The **eleventh** issue on appeal is whether Adams suffices to justify rejection of claim 180 under 35 USC 103(a) despite: (c) the absence of any statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **twelfth** issue on appeal is whether Adams suffices to justify rejection of claims 191, 192, 194, 195, 197-199 and 201-202 under 35 USC 103(a) despite: (a) Adams's failure to disclose (a-1) publishing anything; (b) Adams's teaching away from (b-1) publishing anything "in a manner that permits receipt and use by members of the public with no right to receive nonpublic information ..."; and (c) the absence of any statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **thirteenth** issue on appeal is whether Adams suffices to justify rejection of claim 193 under 35 USC 103(a) despite: (a) Adams's failure to disclose (a-1) publishing anything, (a-2) publishing a data packet that comprises a first identifier and a first data item that concerns a first offer, and (a-3) a predetermined relationship between the first data item and a second offer; (b) Adams's teaching away from (b-1) publishing anything; and (c) the absence of any statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **fourteenth** issue on appeal is whether Adams suffices to justify rejection of claim 200 under 35 USC 103(a) despite: (a) Adams's failure to disclose (a-1) publishing anything, (a-2) publishing a data packet that comprises a first identifier and a first data item that concerns an execution of the first offer, and (a-3) a predetermined relationship between the first data item and the first offer; (b) Adams's teaching away from (b-1) publishing anything; and (c) the absence of any statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **fifteenth** issue on appeal is whether Adams suffices to justify rejection of claim 203 under 35 USC 103(a) despite: (a) Adams's failure to disclose (a-1) storing in the offer matching system an association among a first participant and a first monitor, (a-2) receiving a message that approves a first offer, (a-3) determining that the message is from the first monitor, (a-4) before determining that the message is from the first monitor, refusing to execute the first offer against any other offer, and (a-5) after determining that the message is from the first monitor, executing the first offer at least in part against a second offer; (b) Adams's teaching away from (b-1) waiting for an approval before executing a first offer against a second offer when the first offer is capable of being executed against the second offer; and (c) the absence of any statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **sixteenth** issue on appeal is whether Adams in view of Hauser et al. (WO 97/25801 hereinafter Hauser) suffices to justify rejection of claims 177-178 under 35 USC 103(a) despite: (a) Adams's failure to disclose (a-1) receiving a request that includes a first identifier associated with a first offer, (a-2) in response to such request, sending a reply that comprises a data item that concerns the first offer, (a-3) in response to such request, sending a reply that comprises a digital signature, and (a-4) sending the response in a manner that is secured without relying upon the digital signature; (b) Adams's teaching away from (b-1) using a query/response protocol to communicate information about a particular offer; and (c) the absence of any statement by the Examiner of the basis for a view as to what one skilled in the art would do.

**(7) Grouping Of Claims**

In determining the grouping of claims, the Applicant has been guided primarily by a desire to track the claim groupings suggested by the Examiner in the Office Action.

The grouping of claims is as follows:

for the **first** issue on appeal, claim 196;

for the **second** issue on appeal, claims 169-171, 173-177, 179, 182-183, and 184-208.

for the **third** issue on appeal, claims 177 and 178;

for the **fourth** issue on appeal, claims 169, 173, 179, 182, 184, 185, 187, 191, 197, 203 and 204;

for the **fifth** issue on appeal, claims 169-176; claims 169-176 do not stand or fall together, despite the Examiner's suggestion to the contrary;

for the **sixth** issue on appeal, claims 170 and 171; claims 170 and 171 do not stand or fall together, despite the Examiner's suggestion to the contrary;

for the **seventh** issue on appeal, claim 171;

for the **eighth** issue on appeal, claim 174;

for the **ninth** issue on appeal, claims 179 and 181; claim 179 does not stand or fall together with claim 181, despite the Examiner's suggestion to the contrary;

for the **tenth** issue on appeal, claim 184;

for the **eleventh** issue on appeal, claim 180;

for the **twelfth** issue on appeal, claims 191, 192, 194, 195, 197-199 and 201-202;  
such claims do not stand or fall together, despite the Examiner's  
suggestion to the contrary;  
for the **thirteenth** issue on appeal, claim 193;  
for the **fourteenth** issue on appeal, claim 200;  
for the **fifteenth** issue on appeal, claim 203;  
for the **sixteenth** issue on appeal, claims 177-178; such claims do not stand or fall  
together, despite the Examiner's suggestion to the contrary;

(8) **Argument**

**The first issue on appeal.** In the Office Action at page 2, claim 196 is rejected under 35 USC 101 as directed to non-statutory subject matter because "... the data does not impact functionality to the data stream as claimed." However, the Manual of Patent Examining Procedure at Section 2106(IV)(B)(1)(c), which provides in relevant part "However, a signal claim directed to a practical application of electromagnetic energy is statutory regardless of its transitory nature." [Citations omitted.] Additionally, Section 101 does not contain any requirement that an invention "impact functionality" to anything. Furthermore, Applicant asserts that the limitations contained in claim 196 do impart functionality to the data stream as claimed.

In the Office Action at page 11, paragraph 10, the Examiner appears to be arguing (without citing any relevant authority) that because a data stream is not a computer component that imparts functionality to a computer, it is not statutory subject matter.

The Examiner also points out that abstract ideas are not statutory subject matter.

However, Claim 196 requires, among other things, that the data packets comprising the claimed data stream satisfy a number of very specific limitations that tie the data stream of claim 196 to the very specific context of offers, offer matching systems, participants, and rules that govern the operation of offer matching systems.

Reversal is requested.

**The second issue on appeal.** In the Office Action at pages 2 and 11 (at paragraph 11),



the Examiner rejects claims 169-171, 173-177, 179, 182-183, and 184-208 under 35 U.S.C. 101 on the grounds that those method claims are non-statutory because they fail to satisfy several undefined requirements proposed by the Examiner that are not set forth in Title 35. However:

- (a) Each of such method claims is directed to a process, as expressly permitted in 35 U.S.C. 101.
- (b) Each of such method claims is expressly limited to methods for operating and/or interacting with offer matching and/or information publishing systems.
- (c) The specification discloses technology permitting one reasonably skilled in the art to practice the methods set forth in the claims.
- (d) 35 U.S.C. 101 does not require that a claim for a method:
  - (d-1) include a process (somehow distinct from the claimed method itself) for carrying out the invention, Applicant notes that each of such claims sets forth each of the steps of the process for carrying out the invention,
  - (d-2) include structural means for carrying out the invention, which Applicant notes were disclosed in the specification,
  - (d-3) be implemented with specific automated computer apparatus, although Applicant notes that specific computer apparatus was disclosed in the specification,
  - (d-4) be in the "technological" or "useful" arts, although Applicant notes that each such method claim concerns the useful art of operating or interacting with systems performing the useful function of offer matching,
  - (d-5) affect or define the technology, although Applicant notes that each such method claim is limited in ways that tie it to the performance of a useful function,
  - (d-6) recite technology in the body of the claim, or

- (d-7) be tied in the body of the claim to technological art, environment or machine, although Applicant notes that each such method claim is limited in ways that tie the claimed method to an offer matching system or an information publishing system.
- (e) As the Supreme Court has held, Congress chose the expansive language of § 101 so as to include "anything under the sun that is made by man." See *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09, 206 USPQ 193, 197 (1980):

In choosing such expansive terms as "manufacture" and "composition of matter," modified by the comprehensive "any," Congress plainly contemplated that the patent laws would be given wide scope. The relevant legislative history also supports a broad construction. The Patent Act of 1793, authored by Thomas Jefferson, defined statutory subject matter as "any new and useful art, machine, manufacture, or composition of matter, or any new or useful improvement [thereof]." Act of Feb. 21, 1793, § 1, 1 Stat. 319. The Act embodied Jefferson's philosophy that "ingenuity should receive a liberal encouragement." 5 Writings of Thomas Jefferson 75-76 (Washington ed. 1871). See *Graham v. John Deere Co.*, 383 U.S. 1, 7-10 (1966). Subsequent patent statutes in 1836, 1870, and 1874 employed this same broad language. In 1952, when the patent laws were recodified, Congress replaced the word "art" with "process," but otherwise left Jefferson's language intact. The Committee Reports accompanying the 1952 Act inform us that Congress intended statutory subject matter to "include anything under the sun that is made by man." S. Rep. No. 1979, 82d Cong., 2d Sess. 5 (1952); H.R. Rep. No. 1923, 82d Cong., 2d Sess. 6 (1952).

This perspective has been embraced by the Federal Circuit:

The plain and unambiguous meaning of § 101 is that any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may be patented if it meets the requirements for patentability set forth in Title 35, such as those found in §§ 102, 103, and 112. The use of the expansive term "any" in § 101 represents Congress's intent not to place any restrictions on the subject matter for which a patent may be obtained beyond those specifically recited in § 101 and the other parts of Title 35. . . . Thus, it is improper to read into § 101 limitations as to the subject matter that may be patented where the legislative history does not indicate that Congress clearly intended such limitations. [*Alappat*, 33 F.3d at 1542, 31 USPQ2d at 1556.]

See also "Examination Guidelines for Computer-Related Inventions, Final Version" at Section IV.A.

- (f) Although in the Office Action at page 11, item 11, the Examiner suggests that the Section 101 rejection of such method claims is supported by the Examiner's confusion about what is included and what is excluded by the preamble, Applicant submits that the obvious meaning of the phrase "system (which system includes without limitation a computer apparatus)" is that the system referred to must contain a computer apparatus but is not limited solely to systems that contain only a computer apparatus. The clear purpose of the phrase "without limitation" in this context is to negate any potential confusion that a system which contains both a computer apparatus and something else is outside the scope of such claims.

Reversal is requested.

**The third issue on appeal.** Claims 177 and 178 are rejected under the second paragraph of 35 USC 112.

In the Office Action at page 3, paragraph 4, the Examiner asserts that "[i]t is confusing as to if the digital signature is claimed or not."

Claim 177, step (c), requires "sending ... a reply that: (1) comprises ... a digital signature ... and (2) is sent ... in a manner that is secured without relying upon the digital signature..." Clearly, the text of Claim 177 requires both that the reply comprise a digital signature and that the reply also be secured in a manner that does not rely upon the digital signature.

Claim 178, item (c), requires a "means for securely sending a reply ... where the reply: (1) comprises ... a digital signature ... and (2) is sent ... in a manner that is secured without relying upon the digital signature." Clearly, the text of Claim 178 requires both that the reply comprise a digital signature and that the reply also be secured in a manner that does not rely upon the digital signature.

For example, a reply that includes a digital signature (see for example the discussion in the application at page 29 line 25 - page 30 line 8) could also be encrypted using a method that is completely independent of the digital signature and treats the digital signature simply as part of the plain text that is being encrypted.

While it might be unusual both to digitally sign a reply and to secure the same reply in a second manner that does not rely upon the digital signature, novelty and a lack of obviousness are normally considered desirable in a patent claim.

In the Office Action at page 11, paragraph 12, the Examiner appears to be admitting that both claims require both a digital signature and some other technique for securing data. While the Examiner might remain confused as to why using both a digital signature and some other technique for securing data is useful, there is no reason why the Examiner's continued confusion about the desirability or utility of the invention should render claims 178 and 179 unpatentable for failing to point out and claim the subject matter which Applicant regards as his invention.

Reversal is requested.

**The fourth issue on appeal.** In the Office Action at page 3, paragraph 1, claims 169, 173, 179, 182, 184, 185, 187, 191, 197, 203 and 204 are rejected under 35 USC 112 second sentence.

The Examiner suggests that such claims are "confusing" and therefore fail to satisfy the second sentence of 35 USC 112 because in their preambles they include the phrase "system

(which system includes without limitation a computer apparatus)". Applicant submits that the obvious meaning of the phrase "system (which system includes without limitation a computer apparatus)" is that the system referred to must contain a computer apparatus but is not limited solely to systems that contain only a computer apparatus. The clear purpose of the phrase "without limitation" in this context is to negate any potential confusion that a system which contains both a computer apparatus and something else is outside the scope of such claims.

The Examiner has not objected to claim 177 on Section 112 grounds, despite the fact that the preamble to claim 177 refers simply to a "system". Applicant submits that it defies logic to assert that the phrase "system" [which might not include any sort of computer apparatus] is sufficiently specific to satisfy the requirements of Section 112 while the phrase "system (which system includes without limitation a computer apparatus)" [which requires the presence of at least a computer apparatus] somehow fails to pass statutory muster.

Reversal is requested.

**The fifth issue on appeal.** In the Office Action at page 3 paragraph 5, at page 4 lines 1-9 and page 11 paragraph 13, claims 169-176 are rejected under 35 USC 102(b) as being anticipated by Adams.

- (a) Adams fails to disclose elements of claims 169-176, including elements which the Examiner asserts Adams does disclose.
  - (a-1) Adams fails to disclose sending or receiving a request that includes an identifier associated with an offer. In the Office Action at page 4, the Examiner asserts that Adams, at column 10 lines 1-15 and column 12 lines 1-9, teaches "receiving request for information where the request includes the first identifier". In the Office Action at page 11 paragraph 13 the Examiner asserts that Adams, at column 10 lines "4-" [sic.] the identifier "20,562" was given to Subscriber A in order to identify his or her offer. Applicant admits that Adams teaches associating an identifier (in this example, "20,562") with an offer. However, Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning sending a request that includes an

identifier associated with an offer to an offer matching system or an offer matching system's receiving a request that includes an identifier associated with an offer.

In reviewing the portions of Adams cited by the Examiner, it is important to note that when Adams speaks of a "Reply", he is speaking of a counter-offer that is entered into an offer matching system by a subscriber to that system. Adams is not speaking of a reply by an offer matching system to a request for information that includes an identifier associated with an offer. Consequently, Adams's specialized use of the term "Reply" should not be understood to imply any sort of underlying request to an offer matching system.

When Adams speaks at column 10 lines 1-12 of subscriber B's "Reply" to subscriber A's "Book & Broadcast", Adams means subscriber B's counter-offer to subscriber A's original offer. This is summarized in Adams at column 10 lines 16-19 which explains that after keying in "REPLY" and "20562" (the identifier associated with Subscriber A's original offer), "[n]ext subscriber A strikes key 172 in the BUY shift thus indicating that his reply is an offer to buy securities of X Corporation and is in response to an offer of subscriber A to sell said securities." For a painfully detailed description of how the offer matching system of Adams processes "Book & Broadcast" commands, see Adams at column 15 line 69 - column 19 line 72. For a painfully detailed description of how the offer matching system of Adams processes "Reply" to an offer commands, see Adams at column 26 line 1 - column 27 line 63.

Similarly, when Adams speaks at column 12 lines 7-8 of "Replies" from subscribers, Adams means counter-offers (entered using "Reply" to an

offer commands, see Adams at column 26 line 1 - column 27 line 63, or "Reply" to a Reply commands, see Adams at column 27 line 64 - column 29 line 69) to previously entered offers (entered with "Book" or "Book and Broadcast" commands, see Adams at column 15 line 69 - column 19 line 72) or to previously entered counter-offers (entered with "Reply" commands or "Reply" to a Reply commands).

In the Office Action at page 12 lines 1-3, the Examiner asserts without citing any relevant language in Adams that "Subscriber B using [sic.] the identifier to request information on the identified offer". Conversely, Adams at column 10 lines 1-7 explains that "Subscriber B's reply to the offer of subscriber A is an offer to buy 15,000 shares of X Corporation at 25 1/2." Thus what Adams actually discloses is that in response to Subscriber A's offer to sell, Subscriber B submits an offer to buy -- not information about Subscriber A's offer to buy.

- (a-2) Adams fails to disclose sending or receiving a request in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the offer.

(a-2-1) In the Office Action at page 4, the Examiner asserts that Adams, at column 12 lines 1-9, discloses "the request is received in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the first offer". However, Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning communications with persons not known to be entitled to receive nonpublic information.

When Adams speaks at column 12 lines 2-3 of "anonymity among the various subscribers", Adams means that no subscriber knows

which other subscriber entered a particular offer or counter-offer into the offer matching system. Adams does not mean that the offer matching system does not know which subscriber entered and is responsible for each offer or counter-offer entered into the offer matching system. As support for this interpretation of Adams's use of the term "anonymity", see Adams at, inter alia:

column 1 lines 26-27 (motivation for Adams's invention included requirement for "... a device which would provide the institutional investors and other traders anonymity and confidentiality when they communicated with each other ..." [emphasis added]);

column 5 lines 65-68 (SIGN ON OR OFF key for use "... whenever the subscriber installation ... is to be unused for an extended period of time or when a different individual becomes the operator of the subscriber installation.");

column 6 lines 35-38 ("Furthermore, security passwords corresponding to each subscriber are also stored in the subscriber file and are accessible by the system and authorized persons at the subscriber installation location");

column 9 lines 53-61 ("In general, a Reply is a direct communication to one or more subscribers. The subscribers involved are always completely anonymous to one another, since the system records internally the senders and receivers of all messages and classifies these senders and receivers by code numbers. A subscriber refers only to a reply number or an offer number printed on a message he receives and the system sends his



reply to the originator of the message to which he is replying.");  
and

column 12 lines 18-20 ("In addition to these reference numbers the system also utilizes an authorized subscriber code which allows the system to identify an authorized user of the system.")

(a-2-2) In the Office Action at page 12 paragraph 14, the Examiner asserts that Adams at column 1 lines 44-47 teaches "it is an object of the invention to provide an apparatus and method of automatically, anonymously and equitable buying and selling fungible properties between subscribers" [emphasis added]. Applicant respectfully submits that the phrase "between subscribers" modifies each of "automatically," "anonymously" and "equitable buying and selling fungible properties". I.e., maintaining anonymity between subscribers is an object of Adam's invention, but maintaining anonymity between the subscribers and the offer matching system is NOT an object of Adam's invention. As a matter of logic, it boggles the imagination to think that Adams contemplates that subscribers will somehow buy and sell fungible properties without anyone (buyer, seller or system) knowing whom the buyer and seller are. In addition, see Adams at, inter alia:

column 1 lines 26-27 (motivation for Adams's invention included requirement for "... a device which would provide the institutional investors and other traders anonymity and confidentiality when they communicated with each other ..." [emphasis added]);

column 5 lines 65-68 (SIGN ON OR OFF key for use "... whenever the subscriber installation ... is to be unused for an extended period

of time or when a different subscriber installation."); becomes the operator of the

column 6 lines 35-38 ("Furthermore, corresponding to each subscriber are passwords file and are accessible by the system and the subscriber persons at the subscriber installation location");

column 9 lines 53-61 ("In general, a Reply is a direct communication to one or more subscribers. The subscribers involved are always completely anonymous to one another, since the system records internally the senders and receivers of all messages and classifies these senders and receivers by code numbers. A subscriber refers only to a reply number or an offer number printed on a message he receives and the system sends his reply to the originator of the message to which he is replying."); and

column 12 lines 18-20 ("In addition to these reference numbers the system also utilizes an authorized subscriber code which allows the system to identify an authorized user of the system.") (a-2-3) In the Office action at page 12 paragraph 14, the Examiner asserts that Adams at column 3 line 9 recites "absolute anonymity is maintained". However, the full sentence in Adams at column 3 lines 6-9 is "As is true with every subprogram within the system, every message is fully documented by being produced simultaneously on the printer/receiving unit of both subscribers and absolute anonymity is maintained". Applicant admits that Adams at column 3 lines 6-9 teaches having a system print messages on

the printer/receiving unit of two subscribers without disclosing to either subscriber the identity of the other subscriber. However, the actions described by Adams at column 3 lines 6-9 require as a matter of logic that the system (as opposed to the subscribers) know who both of the subscribers are so that the system can cause messages to be printed on the printer/receiving unit of "both subscribers". Furthermore, at column 12 lines 50-63 Adams teaches that the system sends a summary of the transactions within the system for a given day to a printer at a banking institution so that the bank can perform "the necessary financial dealings associated with each transaction." Which, as a matter of logic, the bank could not do unless the system both knows the identity of the subscribers on the buy and sell sides of each trade and discloses those identities to the bank. Consequently, Adams at column 3 line 9 does NOT teach sending or receiving a request in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the offer.

- (a-3) Adams fails to disclose in response to such a request, sending a reply that comprises a data item that concerns the offer. In the Office Action at page 4, the Examiner asserts that Adams, at column 10 lines 1-36 and column 12 lines 1-12, discloses "in response to the request, sending a reply comprising a data item that concerns the first offer." However, Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning any sort of response to a request (as distinguished from a counter-offer in response to a prior offer or counter-offer).
- (b) Adams teaches away from the following elements of claims 169-176:
  - (b-1) Adams teaches away from using a query/response protocol to communicate information about an identified offer. To the contrary,

Adams teaches that information about an offer should either be:

broadcast to all or selected subscribers, see for example the detailed description of the "Book and Broadcast" function at column 15 line 69 - column 19 line 72; or

obtained in response to a "Book Print" command which is not specific to a particular order but rather prints descriptions of all open orders for a particular traded item, see the detailed description of the "Book Print" function at column 13 line 7 - column 15 line 7.

- (b-2) Adams teaches away from communicating about offers in a manner that does not imply that such communication is from or to a person entitled to receive nonpublic information about such offer in the following ways:
  - (b-2-i) Adams teaches that "... the system records internally the senders and receivers of all messages and classifies these senders and receivers by code numbers." See column 9 lines 53-61.
  - (b-2-ii) Adams teaches the use of "... an authorized subscriber code which allows the system to identify an authorized user of the system." See column 12 lines 18-20.
  - (b-2-iii) Adams teaches that "... security passwords corresponding to each subscriber are also stored in the subscriber file and are accessible by the system and authorized persons at the subscriber installation location". See column 6 lines 35-38.
  - (b-2-iv) Adams teaches using the SIGN ON OR OFF key "... whenever the subscriber installation ... is to be unused for an extended period of time or when a different individual becomes the operator of the subscriber installation." See column 5 lines 65-68.
  - (b-2-v) Adams teaches that communications about offers are made only within the closed community of subscribers, the system, and a

bank. Adams does not teach any communication with members of the public about anything.

Reversal is requested.

**The sixth issue on appeal.** In the Office Action at page 4 lines 10-11, claims 170-171 are rejected under 35 USC 102(b) as being anticipated by Adams on the grounds that claims 170-171 further recite well known execution information and process of an offer. Claims 170 and 171 are dependent upon claim 169. As discussed above, Adams is not sufficient to justify rejection of claim 169. Thus, Adams is not sufficient to justify rejection of dependent claim 170.

Reversal is requested.

**The seventh issue on appeal.** In the Office Action at page 12 paragraph 15 claim 171 is rejected under 35 USC 102(b) as being anticipated by Adams based upon the Examiner's assertion that at column 5 lines 69 - column 6 line 1 Adams teaches the well known feature of not responding to a request until after an event occurs.

(a) Adams fails to disclose elements of claim 171.

(a-1) Adams fails to disclose not responding to a request until after an event occurs as required by claim 171 element (ii). The Examiner suggests that Adams teaches this element of claim 171 at column 5 lines 69 - column 6 line 1. Applicant has carefully reviewed the portions of Adams cited by the Examiner, and has been unable to find therein any disclosure of not responding to a request until after an event occurs. To the contrary, Adams at column 5 lines 74 - column 6 line 1 states that "[m]essages, such as replies to an offer, directed to a subscriber which has thus signed off are still received at his subscriber installation." It appears to Applicant that Adams teaches printing messages without waiting for an event (the return of a subscriber to his subscriber installation) to occur.

Reversal is requested.

**The eighth issue on appeal.** In the Office Action at page 4 lines 12-20, claim 174 is rejected under 35 USC 102(b) as being anticipated by Adams. Claim 174 is dependent upon claim 173. As discussed above, Adams is not sufficient to justify rejection of claim 173. Thus, Adams is not sufficient to justify rejection of dependent claim 174.

Reversal is requested.

**The ninth issue on appeal.** In the Office Action at page 4 lines 21-22 claims 179 and 181 are rejected under 35 USC 102(b) as being anticipated by Adams.

- (a) Adams fails to disclose elements of claims 179 and 181, including elements which the Examiner asserts Adams does disclose.
- (a-1) Adams fails to disclose publishing anything.

In the Office Action at page 4 lines 3-8, in the context of discussing claims 169-176 and 179, the Examiner asserts that Adams discloses several elements that are not contained in claim 179. In case those elements are somehow relevant to claim 179, please see the fifth issue at (a) for a discussion of the failure of Adams to disclose those elements.

In the Office Action at page 4 lines 21-22, the Examiner asserts that "Adams further teaches publishing the information (col. 12, lines 51-62)." However, Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning publishing any information. Adams at column 12 lines 51-62 discusses sending data that summarizes a days trading transactions to a printer/receiving unit located in a bank to enable the bank to "perform the necessary financial dealings associated with each transaction".

In the Office Action at page 12 paragraph 16 the Examiner asserts that printing information regarding matched offers at a bank to enable the bank to "perform the necessary financial dealings associated with each transaction" constitutes disclosure by Adams of "publishing" the information printed at the bank. To support this position, the Examiner ignores the Examiner's own prior inconsistent (and incorrect) position that Adams teaches absolute anonymity and stretches the definition of publish beyond recognition. Few people other than the Examiner would think that

printing information on a printer located in a bank constitutes publishing in a context of an invention where a major object of the invention is to prevent subscribers from learning the identity of the other subscribers with whom they are trading.

According to Merriam-Webster's Collegiate Dictionary on line (available at <http://www.m-w.com/> as of 2001.10.28), the word "publish", when used in the transitive sense as it is in claims 179 and 181, means: 1a: to make generally known; 1b: to make public announcement of; 2a: to disseminate to the public; 2b: to produce or release for distribution; specifically: PRINT; 2c: to issue the work of (an author). While definition 2b does suggest that "publish" can be used to refer to printing and releasing printed works for distribution, that definition (and common use of the English language) in no way suggests (as the Examiner has) that all printing constitutes publishing of the information that is printed.

Although the Examiner has not yet asserted that the term "Broadcast" as used in Adams means the same thing as "publish" as used in the Application, Applicant respectfully draws the Examiner's attention to the difference between Adams's definition of "Broadcast" and the normal dictionary meaning of "publish" as used in the Application.

Adams explains at column 2 lines 43-48 that "[i]n connection with this invention the term, provides a "Broadcast" or "broadcasts" an offer, refers to the capability of the present invention by which any subscriber who wishes to make an offer to buy or sell a given security may make this fact known directly to all other subscribers." [Emphasis added.] In the context of Adams, subscribers are known to the system, are assigned passwords and identifiers, and are not unknown members of the public.

- (a-2) Claims 179 and 181 both require "publishing, in a manner that permits receipt and use by members of the public with no right to receive nonpublic information about the first offer, a data packet that comprises ..." a first offer identifier and a data item about a first offer. Adams does not disclose, and the Examiner does not even specifically assert that Adams does disclose, publishing such information in such manner.
- (b) Adams teaches away from the following elements of claims 179 and 181:
  - (b-1) Adams teaches away from publishing anything "in a manner that permits receipt and use by members of the public with no right to receive nonpublic information ..." in the following ways:
    - (b-1-i) Adams teaches that "... the system records internally the senders and receivers of all messages and classifies these senders and receivers by code numbers." See column 9 lines 53-61.
    - (b-1-ii) Adams teaches the use of "... an authorized subscriber code which allows the system to identify an authorized user of the system." See column 12 lines 18-20.
    - (b-1-iii) Adams teaches that "... security passwords corresponding to each subscriber are also stored in the subscriber file and are accessible by the system and authorized persons at the subscriber installation location". See column 6 lines 35-38.
    - (b-1-iv) Adams teaches using the SIGN ON OR OFF key "... whenever the subscriber installation ... is to be unused for an extended period of time or when a different individual becomes the operator of the subscriber installation." See column 5 lines 65-68.
    - (b-1-v) Adams teaches that communications about offers are made only within the closed community of subscribers, the system, and a bank. Adams does not teach any communication with members of the public about anything.

Reversal is requested.



**The tenth issue on appeal.** In the Office Action at page 5 lines 1-2, claim 184 is rejected under 35 USC 102(b) as being anticipated by Adams.

- (a) Adams fails to disclose elements of claim 184.
  - (a-1) Adams fails to disclose storing in the offer matching system an association among a first participant and a first monitor as required by claim 184 step (a). In the Office Action at pages 5 lines 1-2, the Examiner asserts that "... Adams further teaches the offer matching system monitoring the trade (col. 2, lines 73 - col. 3, lines 1-10). However, Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning storing in the offer matching system an association among a first participant and a first monitor. The Applicant has been unable to locate in the Office Action any response to the Applicant's earlier request that the Examiner specifically point out where the Examiner believes Adams discloses storing in the offer matching system an association among a first participant and a first monitor.
  - (a-2) Adams fails to disclose receiving a message from the first monitor that approves a first offer as required by claim 184 step (d).

Applicant has carefully read the portions of Adams cited by the Examiner in the Office Action at page 5 lines 1-2 and has been unable to locate any disclosure therein concerning receiving a message from a first monitor that approves a first offer.

Applicant suspects that the Office Action at pages 12-13 paragraph 17 contains the Examiner's response to Applicants request that the Examiner specifically identify where the Examiner believes this element of claim 184 is disclosed in Adams and specifically which element(s) of Adams's invention the Examiner believes correspond(s) to such message of claim

184. The Office Action at pages 12-13 paragraph 17 consists primarily of a copy (without attribution) of material from Adams column 17 line 70 - column 18 line 11 (where Adams discusses Figure 5). Applicant has carefully examined Adams column 17 line 70 - column 18 line 11 and Adams at Figure 5 and has been unable to find in either place any disclosure of receiving any message from anyone, much less a message from a monitor previously associated with a participant from which a first description of a first offer was received. Applicant has been unable to understand how the Examiner's statement in the Office Action at page 13 paragraph 17 that "[i]f the offer is accepted by the system then it is stored in order to allow [sic.] the subscribers to bid on it" relates to any claim that has been rejected by the Examiner.

(a-3) Adams fails to disclose refusing to execute the first offer against any other offer until receiving the message of approval as required by claim 184 step (e). Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning refusing to execute an offer until a message of approval is received.

(a-4) Adams fails to disclose executing the first offer at least in part against a second offer after receiving the message of approval from a monitor, as required by claim 184 step (f). Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning executing an offer only after a message of approval is received.

(b) Adams teaches away from the following elements of claim 184:

(b-1) Adams teaches away from waiting for an approval before executing a first offer against a second offer when the first offer is capable of being executed against the second offer. To the contrary, Adams teaches that when a first offer submitted using the "Book" or "Book and Broadcast" function is capable of being executed against a second offer already

entered in the applicable book, then the first offer should be immediately executed against the second offer, without waiting for any sort of approval message from anyone. See the detailed description of the "Book" and "Book and Broadcast" function in Adams at column 15 line 69 - column 19 line 72.

Note that even if one were to wrongly interpret Adams at column 17 line 70 - column 18 line 11 as teaching not executing an offer before an approval has been received, Applicant has been unable to locate in those portions of Adams any disclosure of executing the same offer after an approval has been received.

Reversal is requested.

**The eleventh issue on appeal.** In the Office Action at page 5 lines 13-14, claim 180 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adams.

Claim 180 is dependent upon claim 179. As discussed above, Adams is not sufficient to justify rejection of claim 179. Thus, Adams is not sufficient to justify rejection of dependent claim 179.

- (c) Despite Applicant's earlier request, the Examiner has failed to state any basis for concluding that it would have been obvious at the time of Applicant's invention for one skilled in the art to modify Adams to include, in combination, all of the following elements of claims 180 and 179 (from which claim 180 depends) that are missing from Adams:
  - (a-1) sending or receiving a request that includes an identifier associated with an offer,
  - (a-2) sending or receiving a request in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the offer,
  - (a-3) in response to such a request, sending a reply that comprises a data item that concerns the offer, and

(a-4) selecting the data item from the options listed in claim 180.

Since the Examiner has failed to respond to Applicant's request for a statement by the Examiner of the basis, if any, for the Examiner's view, Applicant argues that rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference. See *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970).

Reversal is requested.

**The twelfth issue on appeal.** In the Office Action at page 5 line 15 - page 6 line 8, Claims 191, 192, 194, 195, 197-199 and 201-202 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams.

(a) Adams fails to disclose elements of claims 191, 192, 194, 195, 197-199 and 201-202, including elements which the Examiner asserts Adams does disclose.

(a-1) Adams fails to disclose publishing anything. In the Office Action at the bottom of page 5 the Examiner asserts that Adams discloses "... publishing a first data packet that comprises the first identifier and a first data item, the first data item concerning the first offer (col. 12, lines 51-62)."

However, Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning publishing any information. Please see the more extensive discussion of this point that is set forth above for the ninth issue at (a-1).

(a-2) Adams fails to disclose "publishing, in a manner that permits receipt and use by members of the public with no right to receive nonpublic information about the first offer, a data packet that comprises ..." a first offer identifier and a data item about a first offer. Please see the discussion of this point that is set forth above for the ninth issue at (a-2).

(b) Adams teaches away from the following elements of claims 191, 192, 194, 195, 197-199 and 201-202:

(b-1) Adams teaches away from publishing anything "in a manner that permits

receipt and use by members of the public with no right to receive nonpublic information ...". Please see the more extensive discussion of this point that is set forth above for the ninth issue at (b-1).

- (c) Despite Applicant's previous request, the Examiner has failed to state any basis for concluding that it would have been obvious at the time of Applicant's invention for one skilled in the art to modify Adams to include, in combination, all of the elements of claims 191, 192, 194, 195, 197-199 and 201-202 that are missing from Adams, including, inter alia: (a-1) publishing, in a manner that permits receipt and use by members of the public with no right to receive nonpublic information about the first offer, a data packet that comprises a first offer identifier and a data item about a first offer. Since the Examiner has failed to respond to Applicant's request for a statement by the Examiner of the basis, if any, for the Examiner's view, Applicant argues that rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference. See *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970).

Reversal is requested.

**The thirteenth issue on appeal.** In the Office Action at page 6 lines 9-15, claim 193 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adams.

Claim 193 is dependent upon claim 191. As discussed above, Adams is not sufficient to justify rejection of claim 191. Thus, Adams is not sufficient to justify rejection of dependent claim 193.

- (a) Adams fails to disclose elements of claim 193, including elements which the Examiner asserts Adams does disclose.
  - (a-1) Adams fails to disclose publishing anything as required by step (f) of claim 191 from which claim 193 is dependent. In the Office Action at the bottom of page 5 the Examiner asserts that Adams discloses "... publishing a first data packet that comprises the first identifier and a first data item, the first data item concerning the first offer (col. 12, lines 51-62)."

However, Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning publishing any information. Please see the more extensive discussion of this point that is set forth above for the ninth issue at (a-1).

(a-2) Adams fails to disclose publishing a data packet that comprises a first identifier and a first data item that concerns the first offer as required by step (f) of claim 191 from which claim 193 is dependent. Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning publishing any data packet. The Examiner failed to respond to Applicant's request that the Examiner more particularly identify which element(s) of Adams correspond to this element of claim 191 upon which claim 193 depends.

(a-3) Adams fails to disclose a predetermined relationship between the first data item and a second offer. In the Office Action at page 13 paragraph 18 the Examiner appears to admit that Adams fails to disclose this element of claim 191 before stating without citing any prior art that it would have been obvious at the time of Applicant's invention to add this element of claim 193 to Adams.

(b) Adams teaches away from the following elements of claim 193:

(b-1) Adams teaches away from publishing anything. Please see the more extensive discussion of this point that is set forth above for the ninth issue at (b-1).

(c) Despite Applicant's previous request, the Examiner has failed to state any basis for concluding that it would have been obvious at the time of Applicant's invention for one skilled in the art to modify Adams to include, in combination, all of the elements of claim 193 that are missing from Adams, including, inter alia:

(a-1) publishing anything;

- (a-2) publishing a data packet that comprises a first identifier and a first data item that concerns the first offer, and
- (a-3) a predetermined relationship between the first data item and a second offer. Since the Examiner has failed to respond to Applicant's request for a statement by the Examiner of the basis, if any, for the Examiner's view, Applicant argues that rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference. See *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970).

Reversal is requested.

**The fourteenth issue on appeal.** In the Office Action at page 6 line 16 - page 7 line 1, claim 200 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adams.

Claim 200 is dependent upon claim 197. As discussed above, Adams is not sufficient to justify rejection of claim 197. Thus, Adams is not sufficient to justify rejection of dependent claim 200.

- (a) Adams fails to disclose elements of claim 200, including elements which the Examiner asserts Adams does disclose.
  - (a-1) Adams fails to disclose publishing anything, as required by Claim 197 upon which claim 200 depends. In the Office Action at the bottom of page 5 the Examiner asserts that Adams discloses "... publishing a first data packet that comprises the first identifier and a first data item, the first data item concerning the first offer (col. 12, lines 51-62)." However, Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning publishing any information. Please see the more extensive discussion of this point that is set forth above for the ninth issue at (a-1).
  - (a-2) Adams fails to disclose publishing a data packet that comprises a first identifier associated with a first offer and a first data item that concerns an execution of the first offer against the second offer as required by claim

197 step (f). The Examiner did not responded to Applicant's request that the Examiner more particularly identify which elements of Adams correspond to this element of claim 197 upon which claim 200 depends.

In the Office Action at page 6 line 16 - page 7 line 1 the Examiner discusses publishing the price and location when a home is sold.

However, the location of a home identifies the home, not a particular offer to buy or to sell the home. Consequently, the prior art mentioned by the Examiner is irrelevant to step (f) of claim 197 upon which claim 200 depends. If the Examiner had cited prior art that discloses publishing a report of a home sale that includes an identifier associated with a particular offer to buy or to sell the house (as opposed to an identifier associated with the house), that might have been relevant to step (f) of claim 197.

- (a-3) Adams fails to disclose a predetermined relationship between the first data item and the first offer as required by claim 200. The Examiner has not disputed this assertion by Applicant.
- (b) Adams teaches away from the following elements of claim 200:
  - (b-1) Adams teaches away from publishing anything. Please see the more extensive discussion of this point that is set forth above for the ninth issue at (b-1).
- (c) Despite Applicant's previous request, the Examiner has failed to state any basis for concluding that it would have been obvious at the time of Applicant's invention for one skilled in the art to modify Adams to include, in combination, all of the elements of claim 200 that are missing from Adams, including, inter alia:
  - (a-1) publishing anything;
  - (a-2) publishing a data packet that comprises a first identifier and a first data item that concerns an execution of the first offer, and
  - (a-3) a predetermined relationship between the first data item and the first offer.



Since the Examiner has failed to respond to Applicant's request for a statement by the Examiner of the basis, if any, for the Examiner's view, Applicant argues that rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference. See *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970).

Reversal is requested.

**The fifteenth issue on appeal.** In the Office Action at page 7 lines 2-4, claim 203 is rejected under 35 USC 103(a) as being unpatentable over Adams.

- (a) Adams fails to disclose elements of claim 203.
  - (a-1) Adams fails to disclose storing in the offer matching system an association among a first participant and a first monitor as required by claim 203 step (a). In the Office Action at page 7, the Examiner asserts that "... Adams further teaches storing in the offer matching system a first association among a first participant and a first monitor (col. 2, lines 73-, col. 3, lines 1-10)." However, Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning storing in the offer matching system an association among a first participant and a first monitor. The Examiner did not respond to Applicant's request that the Examiner more specifically identify where the Examiner believes this element of claim 203 is disclosed in Adams and specifically which element(s) of Adams's invention the Examiner believes correspond(s) to the first monitor of claim 203.
  - (a-2) Adams fails to disclose receiving a message that approves a first offer, as required by claim 203 step (e). Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning receiving a message from anyone that approves a first offer. The Examiner did not responded to Applicant's request that the Examiner more specifically identify where the Examiner

believes this element of claim 203 is disclosed in Adams and specifically which element(s) of Adams's invention the Examiner believes correspond(s) to such message of claim 203.

- (a-3) Adams fails to disclose determining that the message is from the first monitor, as required by claim 203 step (f). Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning making such a determination. The Examiner did not respond to Applicant's request that the Examiner more specifically identify where the Examiner believes this element of claim 203 is disclosed in Adams.
- (a-4) Adams fails to disclose refusing to execute the first offer against any other offer until determining that the message is from the first monitor, as required by claim 203 step (g). Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning refusing to execute an offer until making such a determination. The Examiner did not respond to Applicant's request that the Examiner more specifically identify where the Examiner believes this element of claim 203 is disclosed in Adams.
- (a-5) Adams fails to disclose executing the first offer at least in part against a second offer after determining that the message is from the first monitor, as required by claim 203 step (h). Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning executing an offer after making such a determination. The Examiner did not respond to Applicant's request that the Examiner more specifically identify where the Examiner believes this element of claim 203 is disclosed in Adams.
- (b) Adams teaches away from the following elements of claim 203:
  - (b-1) Adams teaches away from waiting for an approval before executing a first offer against a second offer when the first offer is capable of being

executed against the second offer. To the contrary, Adams teaches that when a first offer submitted using the "Book" or "Book and Broadcast" function is capable of being executed against a second offer already entered in the applicable book, then the first offer should be immediately executed against the second offer, without waiting for any sort of approval message from anyone. See the detailed description of the "Book" and "Book and Broadcast" function in Adams at column 15 line 69 - column 19 line 72.

- (c) Despite Applicant's previous request, the Examiner has failed to state any basis for concluding that it would have been obvious at the time of Applicant's invention for one skilled in the art to modify Adams to include, in combination, all of the elements of claim 203 that are missing from Adams, including, inter alia:
- (a-1) storing in the offer matching system an association among a first participant and a first monitor,
  - (a-2) receiving a message that approves a first offer,
  - (a-3) determining that the message is from the first monitor,
  - (a-4) before determining that the message is from the first monitor, refusing to execute the first offer against any other offer, and
  - (a-5) after determining that the message is from the first monitor, executing the first offer at least in part against a second offer. Since the Examiner has failed to respond to Applicant's request for a statement by the Examiner of the basis, if any, for the Examiner's view, Applicant argues that rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference. See *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970).

Reversal is requested.

**The sixteenth issue on appeal.** In the Office Action at page 7 paragraph 7, claims 177-178 are

rejected under 35 U.S.C. 103(a) as being unpatentable over Adams in view of Hauser.

- (a-1) Adams fails to disclose receiving a request that includes a first identifier associated with a first offer. In the Office Action at page 4 lines 4-5, the Examiner asserts that Adams, at column 10 lines 1-15 and column 12 lines 1-9, teaches "receiving request for information where the request includes the first identifier". However, Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning a request that includes an identifier associated with an offer.

In reviewing the portions of Adams cited by the Examiner, it is important to note that when Adams speaks of a "Reply", he is speaking of a counter-offer that is entered into an offer matching system by a subscriber to that system. Adams is not speaking of a reply by an offer matching system to a request for information that includes an identifier associated with an offer. Consequently, Adams's specialized use of the term "Reply" should not be understood to imply any sort of underlying request to an offer matching system.

Please see the more extensive discussion of this point above at the fifth issue (a-1).

- (a-2) Adams fails to disclose in response to such a request, sending a reply that comprises a data item that concerns the first offer. In the Office Action at page 4 lines 7-9, the Examiner asserts that Adams, at column 10 lines 1-36 and column 12 lines 1-12, discloses "in response to the request, sending a reply comprising a data item that concerns the first offer." However, Applicant has carefully read the portions of Adams cited by the Examiner and has been unable to locate any disclosure therein concerning any sort of response to a request (as distinguished from a counter-offer in response to

a prior offer or counter-offer).

The Examiner did not respond to Applicant's request that the Examiner more particularly identify where Adams discloses a response to a request (as opposed to a response to an offer) and more particularly identify which aspect of Adams's invention the Examiner believes correspond to which aspects of Applicant's invention.

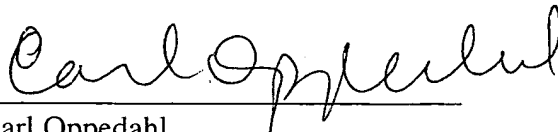
- (a-3) Adams fails to disclose in response to such request, sending a reply that comprises a digital signature. The Examiner admits this failure by relying upon Hauser to make this rejection.
- (a-4) Adams fails to disclose sending the response in a manner that is secured without relying upon the digital signature. The Examiner has cited noting in Adams or Hauser that discloses this requirement of claim 177 step (c)(2) or claim 178 element (c)(2). The Examiner did not respond to Applicant's request that the Examiner identify where Adams or Hauser discloses this element. The Examiner in essence admits that Adams and Hauser do not disclose a second level of security when the Examiner argues that using two levels of security is so confusing as to render the claim unpatentable under Section 112.
- (b) Adams teaches away from the following elements of claims 177-178:
  - (b-1) Adams teaches away from using a query/response protocol to communicate information about an identified offer. To the contrary, Adams teaches that information about an offer should either be:
    - broadcast to all or selected subscribers, see for example the detailed description of the "Book and Broadcast" function at column 15 line 69 - column 19 line 72; or
    - obtained in response to a "Book Print" command which is not specific to a particular order but rather prints descriptions of all open orders for a particular traded item, see the

detailed description of the "Book Print" function at column  
13 line 7 - column 15 line 7.

- (c) Despite Applicant's previous request, the Examiner has failed to state any basis for concluding that it would have been obvious at the time of Applicant's invention for one skilled in the art to modify Adams to include, in combination, all of the elements of claims 177-178 that are missing from Adams, including, inter alia:
- (a-1) receiving a request that includes a first identifier associated with a first offer,
  - (a-2) in response to such request, sending a reply that comprises a data item that concerns the first offer,
  - (a-3) in response to such request, sending a reply that comprises a digital signature, and
  - (a-4) sending the response in a manner that is secured without relying upon the digital signature. Since the Examiner has failed to respond to Applicant's request for a statement by the Examiner of the basis, if any, for the Examiner's view, Applicant argues that rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference. See *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970).

Reversal is requested.

Respectfully,



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APPENDIX ON APPEAL

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## CLAIMS ON APPEAL

### **Claims Involved in the Appeal:**

Claim 169. A method for operating an offer matching or information publishing system  
(which system includes without limitation a computer apparatus) for a traded item  
comprising the following steps:

- (a) associating a first offer to buy or to sell the traded item with a first identifier;
- (b) receiving a request for information, where:
  - (i) the request includes the first identifier and
  - 10 (ii) the request is received in a manner that does not imply that the request is  
from a person entitled to receive nonpublic information concerning the  
first offer; and
- (c) in response to the request, sending a reply comprising a data item that concerns  
the first offer.

Claim 170. The method of claim 169 wherein the data item is selected from the group  
consisting of:

- (i) an identifier for a second offer replaced by the first offer,
- (ii) an indication of whether the first offer may be executed in part without being  
20 executed in full,
- (iii) a time by which the first offer must be approved to avoid automatic cancellation,
- (iv) information that identifies one or more circumstances in which the first offer will



be automatically cancelled,

- (v) information about how any trades arising out of the first offer are to be cleared and settled,
- (vi) a time before which the first offer ought not be executed,
- (vii) a time at which the first offer is scheduled to expire,
- (viii) an indication of how often execution of the first offer may be attempted,
- (ix) information that identifies a circumstance in which the quantity or price of the first offer may be automatically adjusted,
- (x) a time when the first offer was initiated,
- 10 (xi) an indication of who initiated the first offer,
- (xii) an indication of whether the first offer was submitted by or on behalf of a participant or member in an offer matching system,
- (xiii) an indication of whether any odd lot portion of the first offer may be executed in part without being executed in whole,
- (xiv) an indication of whether any round lot portion of the first offer may be broken into odd lots,
- (xv) an indication of whether any odd lot portion of the first offer may be executed at a price that is not the same as a price at which a round lot has executed,
- (xvi) an indication of whether the first offer was submitted by or on behalf of an issuer
- 20 of the traded item,
- (xvii) an indication of whether the first offer is a stabilizing offer,
- (xviii) a time when the first offer was first received by a participant or member in an

offer matching system,

(xix) a time when a description of the first offer was first received by an offer matching system,

(xx) an indication of how the first offer was generated,

(xxi) an indication of whether the first offer is for a long sale, short sale, or exempt short sale,

(xxii) an indication of whether the first offer was solicited by a participant or member in an offer matching system,

(xxiii) an identifier for, or information about, a second offer against which the first offer executed in whole or in part,

(xxiv) an identifier for a transaction report concerning, or information about, a trade in which the first offer executed in whole or in part,

(xxv) an identifier for, or information about, a second offer, where the second offer is for the same traded item as the first offer, for the same side as the first offer and has higher execution priority than the first offer,

(xxvi) an identifier for, or information about, a second offer, where the second offer is for the traded item, for the same side as the first offer and executed in whole or in part at a time, and for a price, which would not have violated any of the requirements of the first offer,

(xxvii) an identifier for a transaction report concerning, or information about, a trade for the traded item not involving the first offer, where the trade occurred at a time, and for a price, which would not have violated any of the requirements of the first

offer,

- (xxviii) if the system is an information publishing system, information calculated by the system based at least in part upon information that was not received by the system from an offer matching system that processed the first offer,
- (xxix) the price of the first offer, either initial or current, and
- (xxx) the quantity of the first offer, either initial or remaining.

Claim 171. The method of claim 169 wherein:

- (i) the request comprises a requirement that a first event occur, the first event being  
10 selected from the group consisting of:
  - (A) that a second data item concerning the first offer changes,
  - (B) that the first offer is modified,
  - (C) that the first offer is cancelled,
  - (D) that the first offer expires,
  - (E) that the first offer becomes executable,
  - (F) that the status of the first offer changes, and
  - (G) that the first offer is executed at least in part; and
- (ii) step (c) is not performed until after the first event occurs.

- 20 Claim 172. An offer matching or information publishing system for a traded item comprising:
  - (a) a means for associating a first offer to buy or to sell the traded item with a first identifier;

- (b) a means for receiving a request for information, where:
  - (i) the request includes the first identifier and
  - (ii) the request is received in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the first offer; and
- (c) a means for sending a reply in response to the request, where the reply comprises a data item that concerns the first offer.

Claim 173. A method for interacting with an offer matching or information publishing system  
10 (which system includes without limitation a computer apparatus) for a traded item comprising the following steps:

- (a) a first disclosee's determining a first identifier associated with a first offer to buy or to sell the traded item;
- (b) the first disclosee's sending to the system a request for information, where:
  - (i) the request includes the first identifier and
  - (ii) the request is made in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the first offer; and
- (c) the first disclosee's receiving from the system, in response to the request, a reply  
20 that comprises a data item that concerns the first offer, where the data item is not the first identifier.

Claim 174. The method of claim 173 wherein:

- (i) the first disclosee possesses information which discloses that a first related person satisfies a first condition selected from the group consisting of:
  - (A) the first offer is for the benefit of the first related person,
  - (B) the first offer is for the account of the first related person,
  - (C) the first related person made an investment decision to make the first offer,
  - (D) the first related person has a financial interest in the first offer,
  - (E) the first related person is financially responsible (as principal, guarantor or otherwise) for the first offer,
  - 10 (F) the first related person is financially responsible (as principal, guarantor or otherwise) for a trade arising out of the first offer,
  - (G) the first related person is acting as an agent with respect to the first offer, and
  - (H) the first related person is acting as a principal with respect to the first offer; and
- (ii) neither the first disclosee nor the system publicly discloses that the first related person satisfies the first condition.

Claim 175. The method of claim 173 wherein until step (c) is performed, the first disclosee  
20 does not possess information which discloses that the first data item concerns the first offer.

Claim 176. The method of claim 173 with the following additional step:

- (d) the first disclosee's comparing the first data item with a description of the first offer that was not received from the system.

Claim 177. A method for operating an offer matching or information publishing system for a traded item comprising the following steps:

- (a) associating a first offer to buy or to sell the traded item with a first identifier;
- (b) receiving a request for information, the request including the first identifier;
- (c) in response to the request, sending to a participant a reply that:

10

- (1) comprises:
  - (A) a first data item that concerns the first offer, and
  - (B) a digital signature from the system that is sufficient to permit a recipient of the reply to determine with reasonable certainty whether the reply was sent by the system and whether the reply has been altered after being sent by the system; and
- (2) is sent to the participant in a manner that is secured without relying upon the digital signature.

Claim 178. An offer matching or information publishing system for a traded item comprising:

20

- (a) means for associating a first offer to buy or to sell the traded item with a first identifier;
- (b) means for receiving a request for information, the request including the first

identifier;

- (c) means for securely sending a reply to a participant in response to the request, where the reply:

(1) comprises:

(A) a first data item that concerns the first offer, and

(B) a digital signature from the offer matching system that is sufficient to permit a recipient of the reply to determine with reasonable certainty whether the reply was sent by the system and whether the reply has been altered after being sent by the system; and

- 10 (2) is sent to the participant in a manner that is secured without relying upon the digital signature.

Claim 179. A method for operating an offer matching or information publishing system (which system includes without limitation a computer apparatus) for a traded item comprising the following steps:

(a) associating a first offer to buy or to sell the traded item with a first identifier;

(b) publishing, in a manner that permits receipt and use by members of the public with no right to receive nonpublic information about the first offer, a data packet that comprises the first identifier and a data item concerning the first offer, where

20 the data item is not the first identifier.

Claim 180. The method of claim 179 wherein the data item is selected from the group consisting of:

- (i) an identifier for a second offer replaced by the first offer,
- (ii) an indication of whether the first offer may be executed in part without being executed in full,
- (iii) a time by which the first offer must be approved to avoid automatic cancellation,
- (iv) information that identifies one or more circumstances in which the first offer will be automatically cancelled,
- (v) information about how any trades arising out of the first offer are to be cleared and settled,
- (vi) a time before which the first offer ought not be executed,
- (vii) a time at which the first offer is scheduled to expire,
- (viii) an indication of how often execution of the first offer may be attempted,
- (ix) information that identifies a circumstance in which the quantity or price of the first offer may be automatically adjusted,
- (x) a time when the first offer was initiated,
- (xi) an indication of who initiated the first offer,
- (xii) an indication of whether the first offer was submitted by or on behalf of a participant or member in an offer matching system,
- (xiii) an indication of whether any odd lot portion of the first offer may be executed in part without being executed in whole,
- (xiv) an indication of whether any round lot portion of the first offer may be broken into



odd lots,

- (xv) an indication of whether any odd lot portion of the first offer may be executed at a price that is not the same as a price at which a round lot has executed,
- (xvi) an indication of whether the first offer was submitted by or on behalf of an issuer of the traded item,
- (xvii) an indication of whether the first offer is a stabilizing offer,
- (xviii) a time when the first offer was first received by a participant or member in an offer matching system,
- (xix) a time when a description of the first offer was first received by an offer matching system,
- (xx) an indication of how the first offer was generated,
- (xxi) an indication of whether the first offer is for a long sale, short sale, or exempt short sale,
- (xxii) an indication of whether the first offer was solicited by a participant or member in an offer matching system,
- (xxiii) an identifier for, or information about, a second offer against which the first offer executed in whole or in part,
- (xxiv) an identifier for a transaction report concerning, or information about, a trade in which the first offer executed in whole or in part,
- (xxv) an identifier for, or information about, a second offer, where the second offer is for the same traded item as the first offer, for the same side as the first offer and has higher execution priority than the first offer,

(xxvi) an identifier for, or information about, a second offer, where the second offer is for the traded item, for the same side as the first offer and executed in whole or in part at a time, and for a price, which would not have violated any of the requirements of the first offer,

(xxvii) an identifier for a transaction report concerning, or information about, a trade for the traded item not involving the first offer, where the trade occurred at a time, and for a price, which would not have violated any of the requirements of the first offer,

10 (xxviii) if the system is an information publishing system, information calculated by the system based at least in part upon information that was not received by the system from an offer matching system that processed the first offer,

(xxix) the price of the first offer, either initial or current, and

(xxx) the quantity of the first offer, either initial or remaining.

Claim 181. An offer matching or information publishing system for a traded item comprising:

(a) a means for associating a first offer to buy or to sell the traded item with a first identifier;

(b) a means for publishing, in a manner that permits receipt and use by members of the public with no right to receive nonpublic information about the first offer, a

20 data packet that comprises the first identifier and a data item concerning the first offer, where the data item is not the first identifier.

Claim 182. A method for interacting with an offer matching or information publishing system (which system includes without limitation a computer apparatus) for a traded item comprising the following steps:

- (a) a first disclosee's determining a first identifier associated with a first offer to buy or to sell the traded item;
- (b) the first disclosee's receiving a data packet from the system, where:
  - (i) the first disclosee received the data packet in a manner that would permit members of the public with no right to receive nonpublic information about the first offer to receive and to use such data packet,
  - (ii) the data packet comprises the first identifier,
  - (iii) the data packet comprises a data item that concerns the first offer, where the data item is not the first identifier, and
  - (iv) until receiving the data packet, the first disclosee did not know that the data item concerns the first offer; and
- (c) the first disclosee's detecting that the data packet includes the first identifier, whereby the first disclosee gains possession of information which discloses that the data item concerns the first offer.

Claim 183. The method of claim 182, wherein the first disclosee determines the first identifier by a method selected from the group consisting of: selecting, generating, receiving and calculating.

Claim 184. A method for operating an offer matching system (which system includes without limitation a computer apparatus) comprising the following steps:

- (a) storing in the offer matching system an association among a first participant and a first monitor, where the first monitor is not the first participant;
- (b) receiving a first description for a first offer;
- (c) determining that the first description is from the first participant;
- (d) receiving a message from the first monitor that approves the first offer;
- (e) before step (d), refusing to execute the first offer against any other offer; and
- (f) after step (d), executing the first offer at least in part against a second offer.

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Claim 185. A method for executing offers in an offer matching system (which system includes without limitation a computer apparatus) comprising the following steps:

- (a) storing in the offer matching system a description of a sell offer for the traded item that includes a minimum price at which the sell offer may be executed;
- (b) storing in the offer matching system a description of a buy offer for a traded item that includes a maximum price at which the buy offer may be executed, where the maximum price is greater than the minimum price;
- (c) selecting a first price that is indicative of recent trading activity for the traded item, where the first price is greater than the minimum price and the first price is less than the maximum price; and
- (d) executing the sell offer, in whole or in part, against the buy offer at the first price.

20

Claim 186. The method of claim 185 wherein the first price is the closing price for the traded item as of the most recent closing of the offer matching system.

Claim 187. A method for interacting with an offer matching system (which system includes without limitation a computer apparatus) comprising the following steps:

- (a) communicating from a first disclosee to a first participant a first description of a first offer, the first disclosee is not the same as the first participant;
- (b) communicating from the first participant to the offer matching system a second description of the first offer;
- 10 (c) communicating from a second participant to the offer matching system a description of a second offer;
- (d) the offer matching system's executing the first offer at least in part against the second offer in accordance with a set of rules that govern the operation of the offer matching system;
- (e) communicating from the first disclosee to the first participant a first request for information concerning the first offer;
- (f) in response to the first request, communicating from the first participant to the offer matching system a second request for information concerning the first offer;
- (g) in response to the second request, communicating from the offer matching system  
20 to the first disclosee a first response comprising:  
a first data item responsive to the first request and  
a first digital signature from the offer matching system.

Claim 188. The method of claim 187 wherein step (g) is performed by communicating from the offer matching system to the first participant the first response and communicating from the first participant to the first disclosee a second response comprising the first data item and the first digital signature.

Claim 189. The method of claim 187 wherein:  
the first request comprises a requirement that a first event occur, the first event being selected from the group consisting of:

10

that a second data item associated with the first offer changes,

that the first offer is modified,

that the first offer is cancelled,

that the first offer expires, and

that the first offer is executed by the offer matching system at least in part,

and step (g) is not performed until after the first event occurs.

Claim 190. The method of claim 187 wherein a predetermined relationship exists between the first data item and the second offer, wherein the predetermined relationship is selected from the group consisting of:

20

the first data item concerns the second offer,

the first data item identifies the second offer, and

the first data item identifies a transaction report for a trade in which the

first offer was executed against the second offer at least in part.

Claim 191. A method for an offer matching system (which system includes without limitation a computer apparatus) to publish information about a first offer comprising the following steps:

- (a) receiving from a first participant a first description of the first offer;
- (b) associating the first offer with a first identifier, the first identifier not associated with any offer other than the first offer;
- (c) if the first description did not disclose the first identifier, sending the first identifier to the first participant in a manner that discloses to the first participant that the first identifier is associated with the first offer;
- 10 (d) receiving from a second participant a description of a second offer;
- (e) the offer matching system's executing the first offer at least in part against the second offer in accordance with a set of rules that govern the operation of the offer matching system;
- (f) publishing a first data packet that comprises the first identifier and a first data item, the first data item concerning the first offer.

Claim 192. The method of claim 191 wherein, under the set of rules, the offer matching system is permitted to disclose publicly that the first data item concerns an offer associated with the first identifier

Claim 193. The method of claim 191 wherein a predetermined relationship exists between the first data item and the second offer, wherein the predetermined relationship is selected from the group consisting of:

the first data item concerns the second offer,

the first data item identifies the second offer, and

the first data item identifies a transaction report for a trade in which the first offer was executed against the second offer at least in part.

Claim 194. The method of claim 191 with the following additional steps:

10 a first information publishing system's receiving the first data packet; and  
the first information publishing system's publishing a second data packet that comprises the first identifier.

Claim 195. The method of claim 194 wherein the second data packet further comprises a second data item, wherein the second data item:

was not contained in the first data packet,

was calculated by the first information publishing system, and

concerns an item selected from the group comprised of  
the first offer and

20 an execution of the first offer against the second offer.



Claim 196. A data stream comprising a plurality of data packets, each of the data packets comprising a respective identifier and a respective data item, wherein:

each respective identifier is associated with a respective offer, and each  
respective identifier not associated with any other offer,  
an offer matching system has previously received a description of each  
respective offer from a respective participant,  
each respective participant possesses information which discloses that a  
respective related person satisfies a respective condition selected  
from the group consisting of:

10

the respective offer is for the benefit of the respective  
related person,

the respective offer is for the account of the respective  
related person,

the respective related person made an investment decision  
to make the respective offer,

the respective related person has a financial interest in the  
respective offer,

the respective related person is financially responsible (as  
principal, guarantor or otherwise) for the respective  
offer,

20

the respective related person is financially responsible (as  
principal, guarantor or otherwise) for a trade arising

out of the respective offer,

the respective related person is acting as an agent with

respect to the respective offer,

the respective related person is acting as a principal with

respect to the respective offer,

the offer matching system possesses information which discloses for each

respective offer the respective identifier associated with the

respective offer,

10 each respective data item concerns the respective offer associated with the

respective identifier,

a set of rules that govern the operation of the offer matching system permit

the offer matching system to disclose publicly that the respective

data items concern the respective offers and

the set of rules does not permit the offer matching system to disclose

publicly that the respective related persons satisfy the respective

conditions.

Claim 197. A method for an offer matching system (which system includes without limitation

20 a computer apparatus) to publish information comprising the following steps:

(a) receiving from a first participant a first description of a first offer;

(b) receiving from a second participant a second description for a second offer;

- 10
- (c) associating the first offer with a first identifier, the first identifier not associated with any offer other than the first offer;
  - (d) if the first description did not disclose the first identifier, sending the first identifier to the first participant in a manner that discloses to the first participant that the first identifier is associated with the first offer;
  - (e) the offer matching system's executing the first offer at least in part against the second offer in accordance with a set of rules that govern the operation of the offer matching system; and
  - (f) publishing a first data packet that comprises the first identifier and a first data item, the first data item concerning an execution of the first offer against the second offer.

Claim 198. The method of claim 197 wherein, under the set of rules, the offer matching system is permitted to disclose publicly that the first data item concerns an execution of the first offer against a different offer.

Claim 199. The method of claim 197 wherein the first data packet further comprises a second identifier associated with the second offer, the second identifier not associated with any offer other than the second offer.

Claim 200. The method of claim 197 wherein a predetermined relationship exists between the first data item and the first offer, wherein the predetermined relationship is selected from

the group consisting of:

the first data item identifies the second offer,

the first data item identifies a transaction report for a trade in which the first offer

was executed against the second offer at least in part,

the first data item specifies a price at which the first offer was executed against the

second offer at least in part, and

the first data item specifies a quantity for which the first offer was executed

against the second offer at least in part.

10    Claim 201.    The method of claim 197 with the following additional steps:

a first information publishing system's receiving the first data packet; and

the first information publishing system's publishing a second data packet that

comprises the first identifier and a second data item.

Claim 202.    The method of claim 201 wherein the second data item:

was not contained in the first data packet,

was calculated by the first information publishing system, and

concerns an item selected from the group comprised of

the first offer,

20                    the second offer, and

an execution of the first offer against the second offer.



- 10
- (b) storing in the offer matching system a description of a sell offer for the traded item;
  - (c) detecting that the buy offer may be executed in whole or in part against the sell offer;
  - (d) determining a minimum price that is the lowest price at which the sell offer may be executed against the buy offer;
  - (e) determining a maximum price that is the highest price at which the buy offer may be executed against the sell offer, wherein the maximum price is greater than the minimum price;
  - (f) selecting a first price that is indicative of recent trading activity for the traded item;
  - (g) executing the buy offer against the sell offer, in whole or in part, at a second price that is equal to:
    - the minimum price, if the first price is less than the minimum price,
    - the first price, if the minimum price is less than the first price and the first price is less than the maximum price, or
    - the maximum price, if the first price is greater than the maximum price.

20      Claim 205.      The method of claim 204 wherein the first price is a price at which the offer matching system previously executed a trade for the traded item.

Claim 206. The method of claim 204 wherein the first price is a weighted average price for a plurality of trades previously executed by the offer matching system.

Claim 207. The method of claim 206 wherein the plurality of trades used to calculate the first price exclude trades at unusually low or unusually high prices.

Claim 208. The method of claim 204 wherein the first price is dependent upon at least one data item that reflects trading in the traded item that did not occur through the offer matching system.